CLAIMS

- 1. The use of a polyacrylamide gel for forming a capsule in the tissue of the organism of a mammal, said capsule being intended for cultivating transplanted autologous or xenogenous cells of an animal for a long period of time, said transplanted cells being intended for producing a biologically active component, the absence or deficiency of which in the organism induces a disease, and/or an increase in the content of which in the organism contributes to improving the condition of the organism suffering from a pathology.
 - 2. The use according to claim 1, wherein said organism is a human organism.
 - 3. The use according to claim 2, wherein said pathology is diabetes mellitus.
- 4. The use according to claims wherein said transplanted cells are pancreatic β-cells.
- 5. The use according to claim 4, wherein said pancreatic cells are cells of newborn rabbits or cells of young pigs.
- 6. A method of cultivating and modifying heterogeneous cells of mammals, with subsequent use of said cells for producing vaccine preparations, wherein cultivating heterogeneous cells is carried out during a long period of time in a living organism by preliminary administration a polyacrylamide gel to a mammal, followed by injecting heterogeneous or autogenous cells of mammals into said gel.
- 7. A method according to <u>claim</u> 6, wherein tumor cells are used as said heterogeneous cells.
- 8. A method according to claim 6, wherein Leydig's cells are used as said heterogeneous cells.
- 9. A method according to any one of claims 6—9, wherein said modification of cells consists in lowering their proliferative activity and in the immunizing effect on the organism.
- 10. A method of treating diabetes mellitus by the method of transplanting pancreatic β -cells, wherein the recipient is preliminarily administered a polyacrylamide gel, followed by transplanting a therapeutically significant amount of pancreatic β -cells into said gel.
- 11. A method according to claim 10, wherein said β -cells are cells of newborn rabbits or cells of young pigs.

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